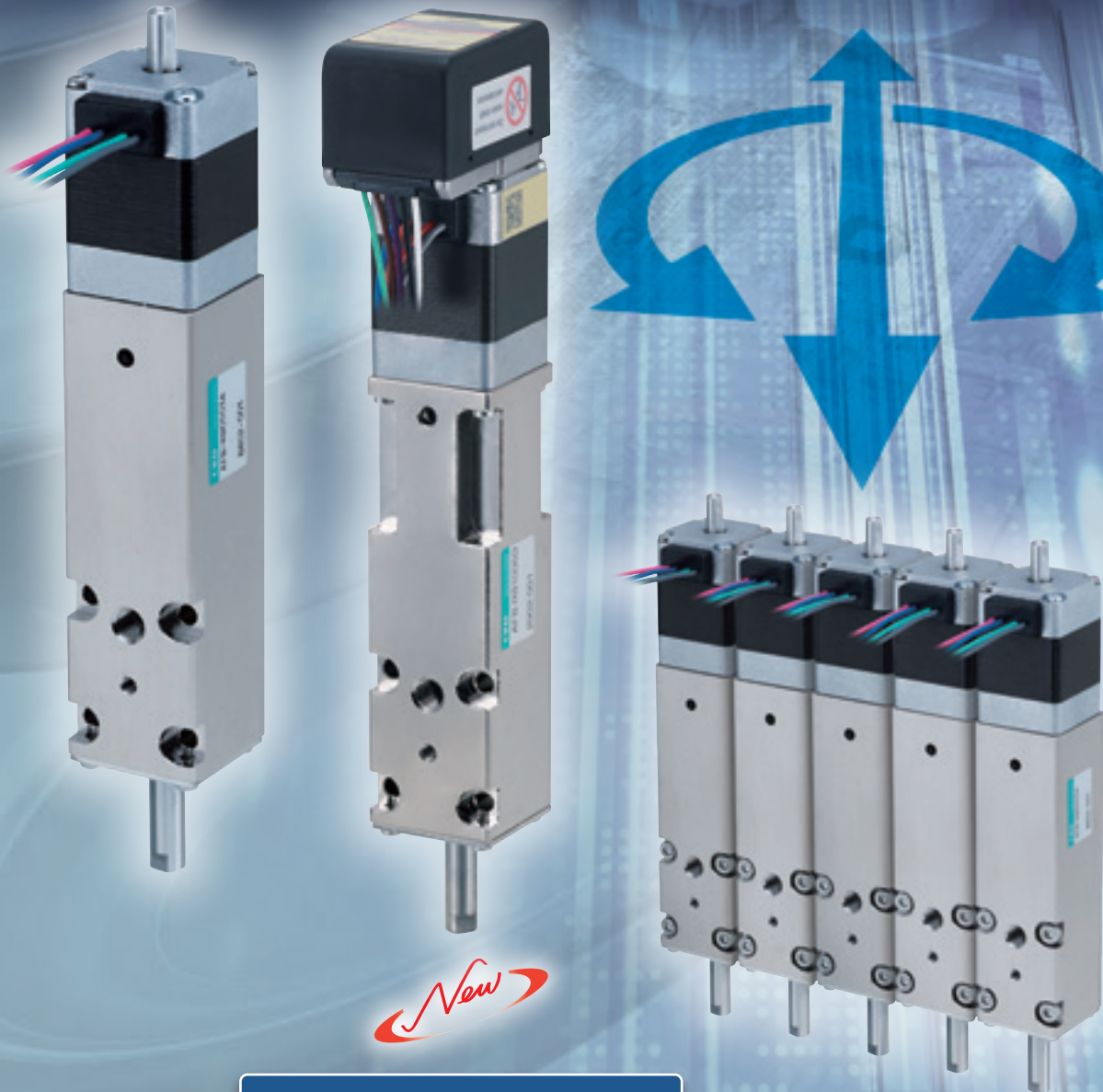


Active Fine Buffer AFB-RB Series



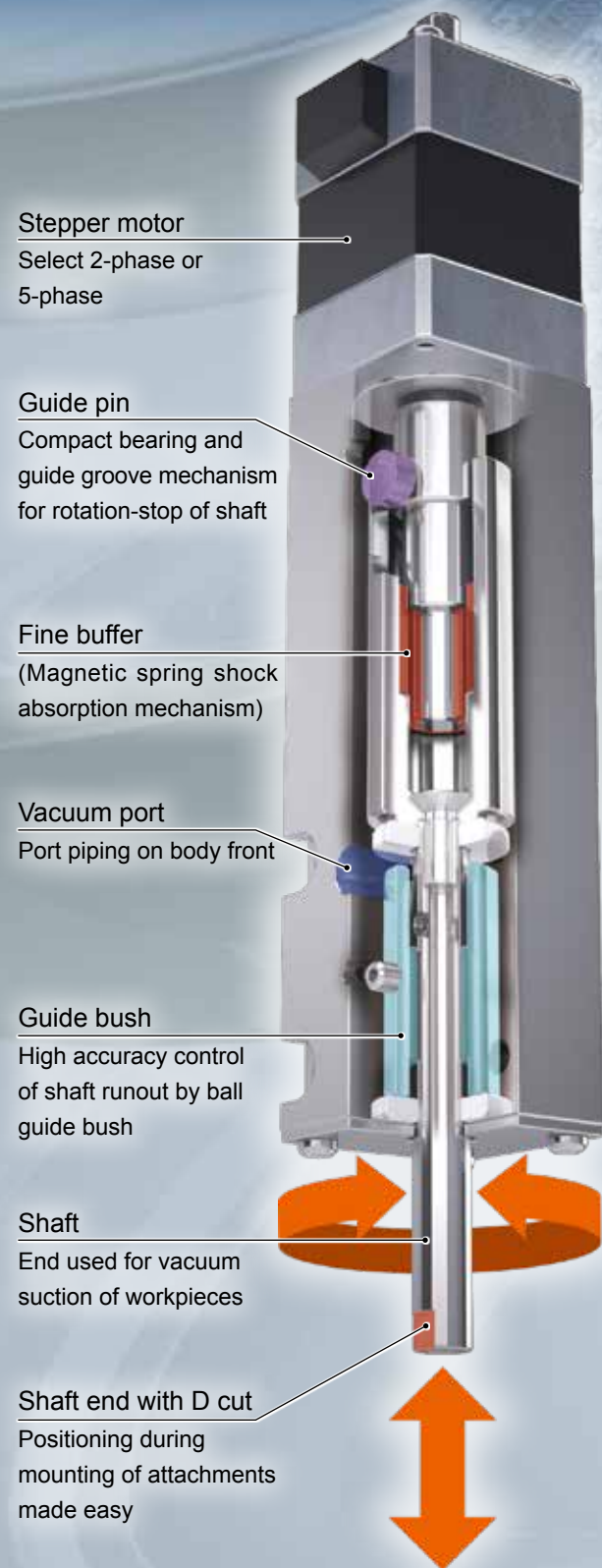
Buffer & Rotation Operation Ideal for Alignments



Built-in battery-less absolute sensor

The motor and fine buffer are integrated for buffer and rotation operations. All-in-one unit makes the manifold configuration compact and lightweight.

Case Study



Stepper motor
Select 2-phase or 5-phase

Guide pin
Compact bearing and guide groove mechanism for rotation-stop of shaft

Fine buffer
(Magnetic spring shock absorption mechanism)

Vacuum port
Port piping on body front

Guide bush
High accuracy control of shaft runout by ball guide bush

Shaft
End used for vacuum suction of workpieces

Shaft end with D cut
Positioning during mounting of attachments made easy

Soft touch

Using the fine buffer (magnetic spring cushioning mechanism) enables uniform pressure without relying on stroke.

Low dust generation/long service life/high performance

Low dust generation, longer service life, and higher performance than with metal springs.

Rotation deflection 0.01 mm or less

Rotation deflection of 0.01 mm or less in the ball shaft achieved.

Easy piping

Vacuum piping from the body front is possible, enabling easy handling.

Space saving

Compact and capable of manifold.

20mm
Width/pitch



Step-out prevention

Uses a bearing and guide groove rotation-stop mechanism. Suppression of shaft runout and high return positioning accuracy realized.

Select from various motors

Select from 2-phase, 5-phase and with battery-less absolute sensor.

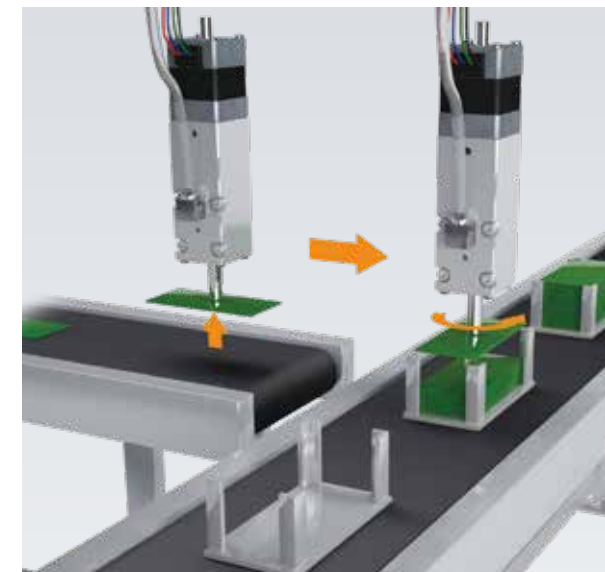
* Refer to the mounted motor specification for details.



Active Fine Buffer
AFB-RB Series

Layered transport

Transport workpieces in uniform pressure without relying on stroke.



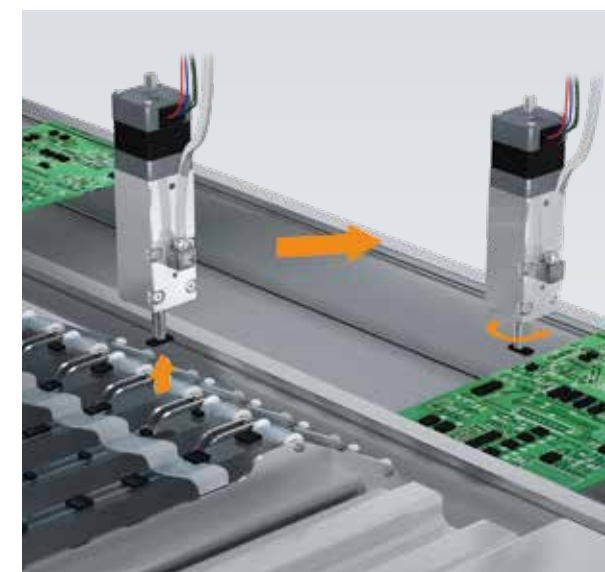
Compact camera and lens modular assembly

Multiple parts inserted sequentially into each case. Workpieces transported in uniform pressure.



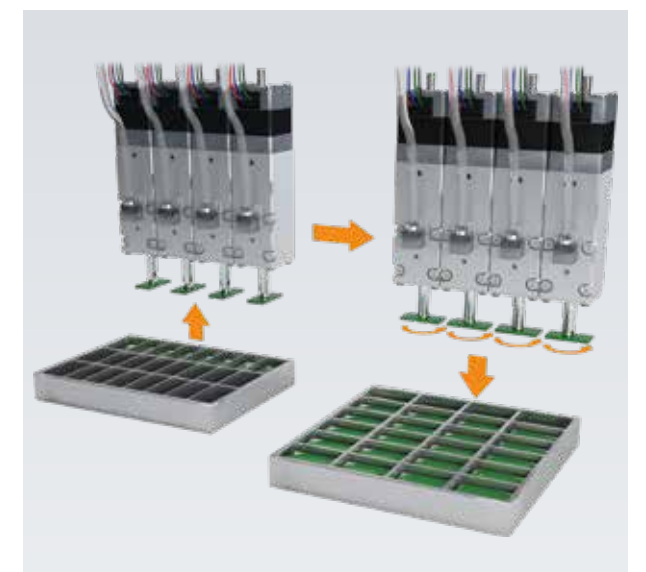
Precision installation

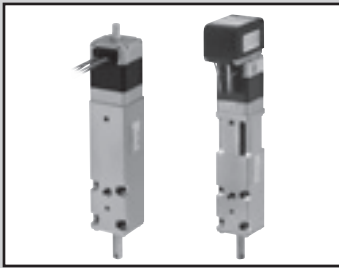
Suppression of shaft runout and high-precision θ alignment enabled.



Rotating alignment in P&P.

Compact installation with mounting pitch of 20 mm enabled.





Active Fine Buffer

AFB-RB Series

Load capacity:50g



Specifications

Item		AFB-RB	
Buffer force	N	0.5±0.2, 1.0±0.2 (Selection method)	
Buffer force change rate	*1	±15% or less	
Stroke	mm	3, 6 (Selection method)	
Ambient temperature	°C	10 to 40	
Storage ambient temperature	°C	0 to 50 (no condensation)	
Rotation runout	mm	0.01	
Repeatability	X, Y mm	±0.01	
		Z mm	±0.02
	θ °	±0.2	
Product weight	g	Approx. 120 (approx. 150 with AZ motor)	
Mounting orientation	*3	Shaft downward	
Load capacity	g	50 or less	
Portable moment of inertia	kg·m ²	2.45 x 10 ⁻⁶ or less	
Movable part weight	g	21	
Moment of inertia of movable parts	kg·m ²	4.56 x 10 ⁻⁷	
Used rotation speed	rpm	100 or less	

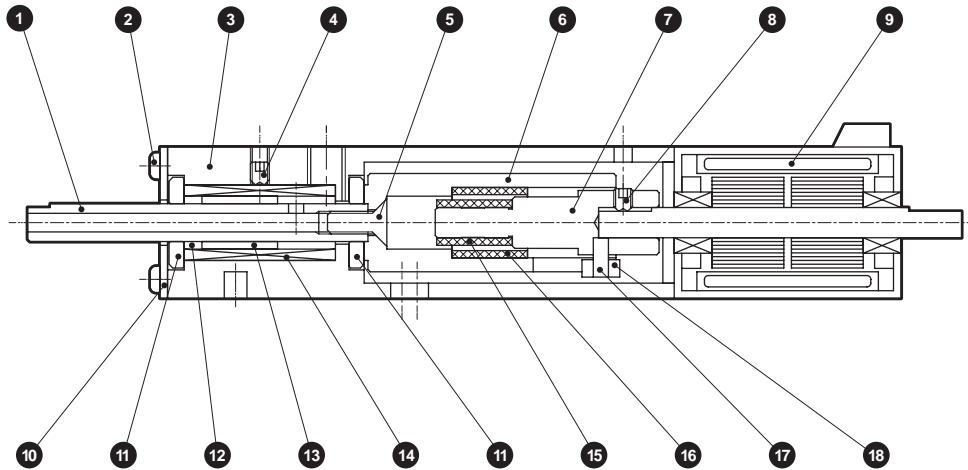
*1: Indicates buffer force variation within the stroke. Buffer force is not proportional to the stroke.

*2: Repeatability is the return position of the shaft following buffering.

*3: When the product is used facing downward, take the weight of movable parts into consideration when setting the buffer force.

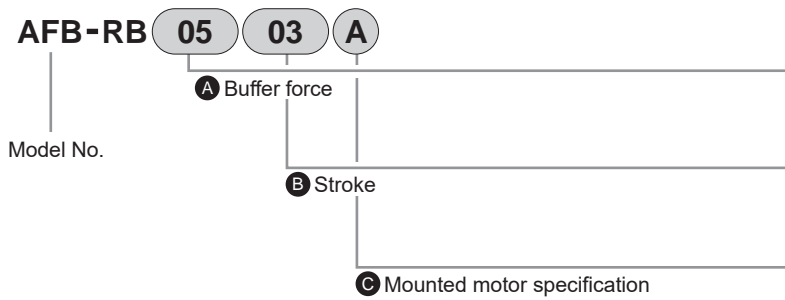
*4: Holding torque depends on the motor specifications.

Internal structure and parts list



Part No.	Part name	Material	Remarks	Part No.	Part name	Material	Remarks
1	Shaft	Stainless steel		10	Cap	Stainless steel	
2	Cross-recessed pan head machine screw	Stainless steel		11	Washer	Polyacetal resin	
3	Body	Aluminum alloy	Electroless nickel plating	12	Outer cylinder cap	Aluminum alloy	
4	Hexagon socket set screw	Stainless steel		13	Retainer	-	
5	Cross-recessed flat head machine screw	Stainless steel		14	External cylinder	Steel	
6	Movable shaft	Aluminum alloy	Trivalent chromate treatment	15	Ring magnet	Plastic magnet	
7	Fixed shaft	Stainless steel		16	Ring magnet	Plastic magnet	
8	Hexagon socket set screw	Stainless steel		17	Parallel pin	Stainless steel	
9	Stepper motor	-		18	Small diameter ball bearing	Stainless steel	

How to order



[Example of model No.]

AFB-RB1006A

- (A) Buffer force (N) : 1.0N
- (B) Stroke length (mm) : 6 mm
- (C) Mounted motor specification : Oriental Motor's two-phase stepping motor

Code	Description
(A) Buffer force (N)	
05	0.5
10	1.0
(B) Stroke length (mm)	
03	3
06	6
(C) Mounted motor specification Note	
A	Oriental Motor's two-phase stepping motor (Motor Model No.: PKP213D05)
B	Oriental Motor's five-phase stepping motor (Motor Model No.: PK513PB)
C	MinebeaMitsumi's two-phase stepping motor (Motor Model No.: 08PM-K049BSTDCN)
D	Oriental Motor's AZ motor (Motor Model No.: AZM14AK)

Note: The motor is a custom-made model No. for AFB-RB. Refer to the model No. above to check the motor specifications.

(Reference) Motor cable (C Mounted motor specification "B")

- Connection cable (for five-phase stepping motor)

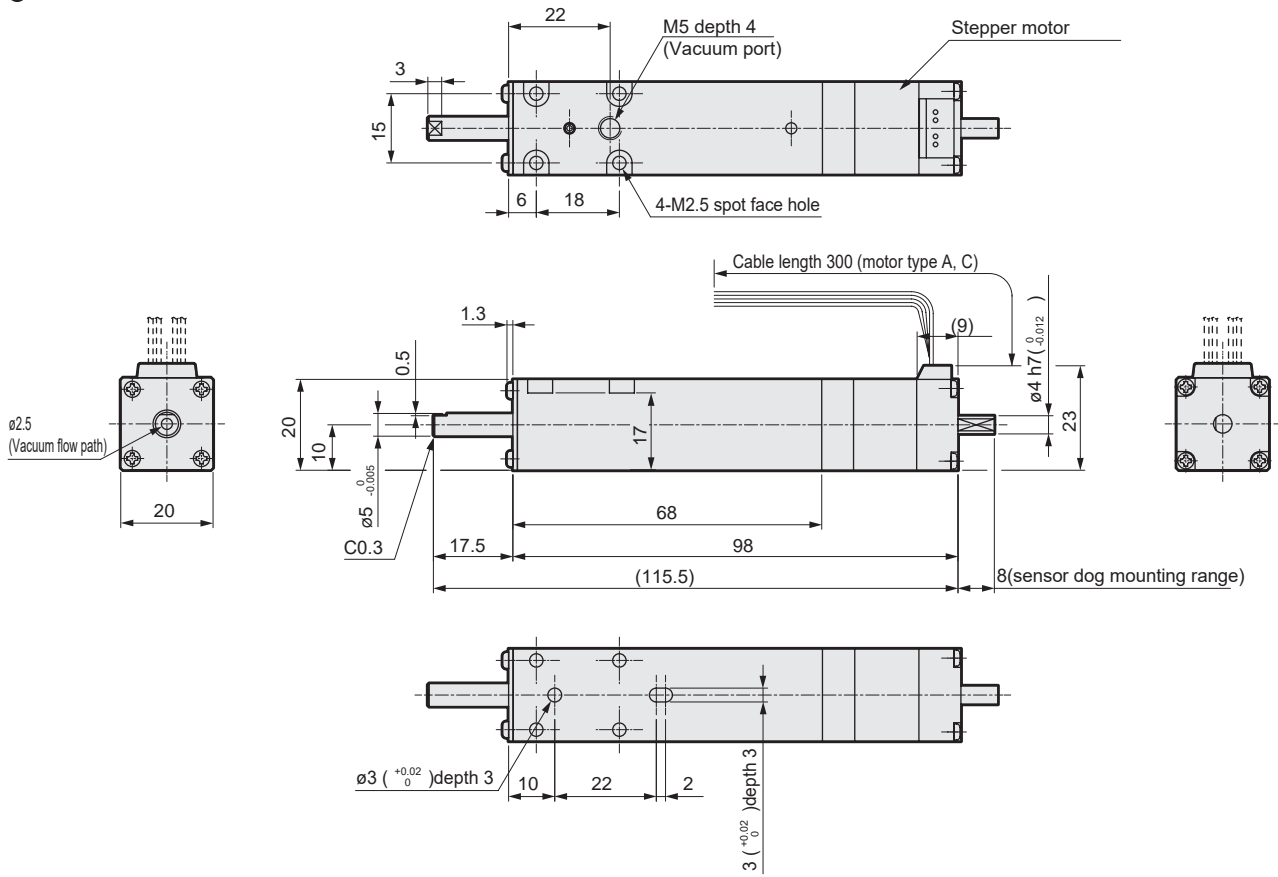
LC5N06A

Contact Oriental Motor Co. Ltd. for details on specifications.

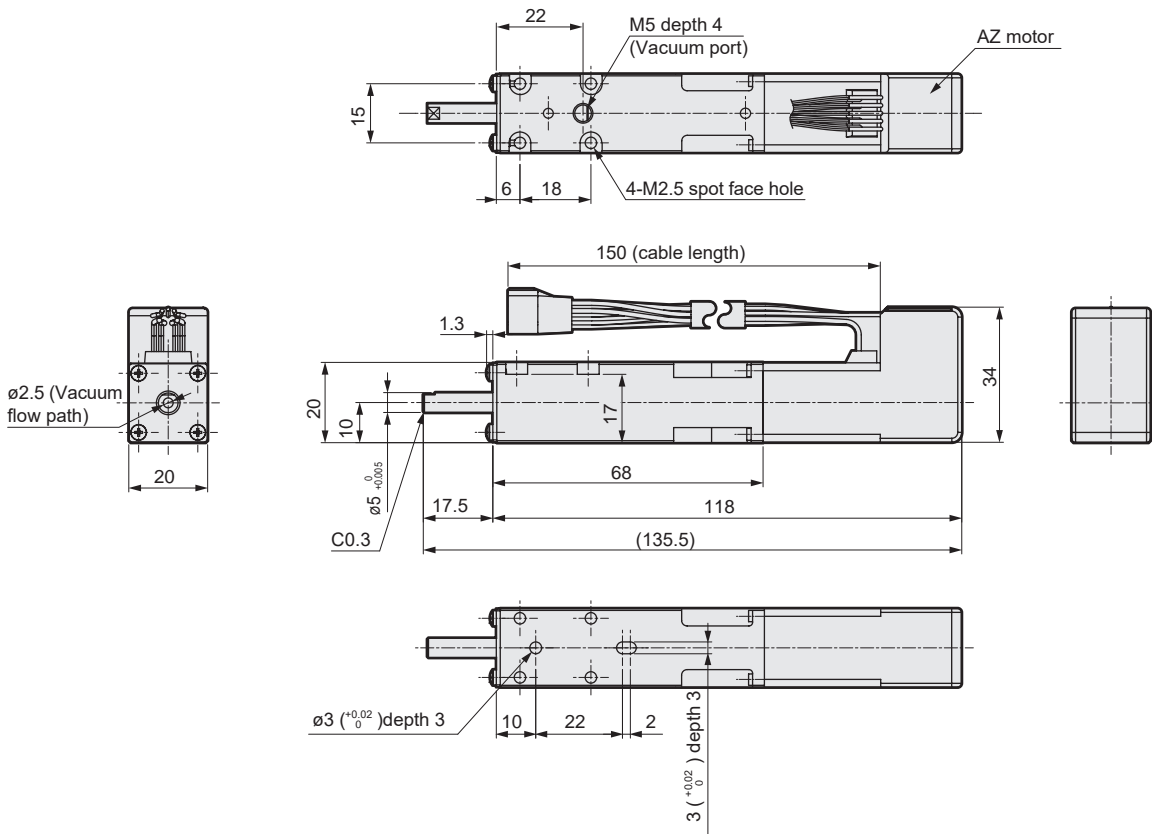
AFB-RB Series

Dimensions

●AFB-RB***



●AFB-RB**D (AZ motor)





Safety Precautions

Be sure to read this section before use.

When designing and manufacturing a device using CKD products, the manufacturer is obligated to check that device safety mechanism, pneumatic control circuit, or water control circuit and the system operated by electrical control that controls the devices is secured.

It is important to select, use, handle and maintain the product appropriately to ensure that the CKD product is used safely.

Observe warnings and precautions to ensure device safety.

Check that device safety is ensured, and manufacture a safe device.





WARNING


- 1** This product is designed and manufactured as a general industrial machine part. It must be handled by an operator having sufficient knowledge and experience.
 - 2** Use this product in accordance with specifications.

This product must be used within its stated specifications. In addition, never modify or additionally machine this product. This product is intended for use in general industrial machinery equipment or parts. It is not intended for use outdoors (except for products with outdoor specifications) or for use under the following conditions or environments. (Note that this product can be used when CKD is consulted prior to its usage and the customer consents to CKD product specifications. The customer should provide safety measures to avoid danger in the event of problems.)

 - ①** Use for applications requiring safety, including nuclear energy, railways, aircraft, marine vessels, vehicles, medical devices, devices or applications in contact with beverages or foodstuffs, amusement devices, emergency cutoff circuits, press machines, brake circuits, or safety devices or applications.
 - ②** Use for applications where life or assets could be significantly affected, and special safety measures are required.
 - 3** Observe organization standards and regulations, etc., related to the safety of device design and control, etc. ISO4414, JIS B 8370 (Pneumatics fluid power - General rules and safety requirements for systems and their components) JFPS2008 (Principles for pneumatic cylinder selection and use) Including the High Pressure Gas Safety Act, Industrial Safety and Health Act, other safety rules, organization standards and regulations, etc.
 - 4** Do not handle, pipe, or remove devices before confirming safety.
 - ①** Inspect and service the machine and devices after confirming safety of all systems related to this product.
 - ②** Note that there may be hot or charged sections even after operation is stopped.
 - ③** When inspecting or servicing the device, turn OFF the energy source (air supply or water supply), and turn OFF power to the facility. Discharge any compressed air from the system, and pay attention to possible water leakage and leakage of electricity.
 - ④** When starting or restarting a machine or device that incorporates pneumatic components, make sure that the system safety, such as pop-out prevention measures, is secured.
 - 5** Observe warnings and cautions in the following pages to prevent accidents.
- The precautions are ranked as "DANGER", "WARNING" and "CAUTION" in this section.

 **DANGER:** When a dangerous situation may occur if handling is mistaken leading to fatal or serious injuries, and when there is a high degree of emergency to a warning.

 **WARNING:** If handled incorrectly, a dangerous situation may occur, resulting in death or serious injury.

 **CAUTION:** When a dangerous situation may occur if handling is mistaken leading to minor injuries or physical damage.

Note that some items described as "CAUTION" may lead to serious results depending on the situation. Every item provides important information and must be observed.

Warranty

- 1** **Warranty period**

The product specified herein is warranted for one (1) year from the date of delivery to the location specified by the customer.
- 2** **Warranty coverage**

If the product specified herein fails for reasons attributable to CKD within the warranty period specified above, CKD will promptly provide a replacement for the faulty product or a part thereof or repair the faulty product at one of CKD's facilities free of charge. However, following failures are excluded from this warranty:

 - 1) Failure caused by handling or use of the product under conditions and in environments not conforming to those stated in the catalog, the Specifications, or the Instruction Manual.
 - 2) Failure caused by use of the product exceeding its durability (cycles, distance, time, etc.) or caused by consumable parts.
 - 3) Failure not caused by the product.
 - 4) Failure caused by use not intended for the product.
 - 5) Failure caused by modifications/alterations or repairs not carried out by CKD.
 - 6) Failure caused by reasons unforeseen at the level of technology available at the time of delivery.
 - 7) Failure caused by acts of nature and disasters beyond control of CKD.

The warranty stated herein covers only the delivered product itself. Any loss or damage induced by failure of the delivered product is excluded from this warranty.
Note: For details on the durability and consumable parts, contact your nearest CKD sales office.
- 3** **Compatibility check**

The customer is responsible for confirming the compatibility of CKD products with the customer's systems, machines and equipment.



Pneumatic components

Safety Precautions

Be sure to read this section before use. Refer to "Pneumatic, Vacuum and Auxiliary Components No. CB-024SA" for general precautions.

Product-specific cautions: Active Fine Buffer AFB-RB Series

Design/selection

⚠ DANGER

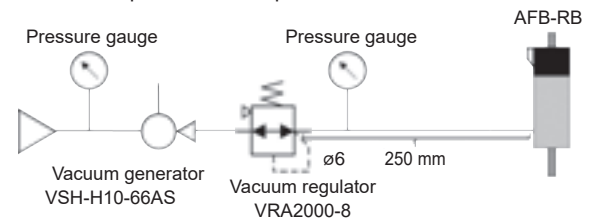
- Do not use in places where dangerous goods such as ignitable substances, inflammable substances or explosives are present. There is a possibility of ignition, combustion or explosion.
- Ensure that the product is free of water droplets and oil droplets. Failure to do so may cause fire or malfunction.
- When mounting the product, be sure to hold and fix it securely. If the product falls, is knocked over, or experiences malfunction, it may lead to injury.
- Be sure to use a DC stabilized power supply for the motor and control power supplies (24 VDC±10%). Connecting directly to the AC power supply may cause fire, explosion, damage, etc.

⚠ WARNING

- This product has a built-in magnet. Do not use where magnetic swarf or dust is present. Otherwise it could be damaged or malfunction.
- Use a hexagon socket bolt to fix the product.
- Mount the product vertically. A lateral load or moment force on the shaft can change the characteristics and affect product life.
- Design a safety circuit or equipment so that damage to equipment, injury to persons, etc., does not occur when the machine stops in the event of a system failure such as emergency stop or power outage.
- Install indoors with low humidity.
There is a risk of electric leakage or fire accidents in places exposed to rainwater or where there is high humidity (humidity of 80% or more, condensation). Oil drops and oil mist are also strictly prohibited.
- Observe the ambient temperature for use and storage. Be sure there is no condensation present on the product when using or storing it.
Failure to do so may cause abnormal stop or shorten the service life of the product. Ventilate in locations where heat may build up.
- Install in a location free from direct sunlight, dust, and corrosive gas/explosive gas/inflammable gas/combustibles, and away from heat sources. Chemical resistance has not been taken into account.
Failure to comply may lead to damage, explosion, or combustion.
- Use and store in locations free from strong electromagnetic waves, ultraviolet rays, or radiation. Otherwise, malfunction or damage may result.
- Limit positive pressure to a max. of 50KPa when applying vacuum burst, and do not use so as to constantly apply pressure.

⚠ CAUTION

- The load (jig and suctioned workpiece) on the shaft must not exceed the load capacity.
- Jig and workpiece weight should be 50 g or less and moment of inertia should be $2.45 \times 10^{-6} \text{kg} \cdot \text{m}^2$ or less.
- When conveying the workpiece, acceleration should not be more than 4 G. Excessive acceleration could result in breakage of the product.
- Clearance sealing improves pressure stability and repeatability. This causes vacuum leakage. Vacuum leakage differs depending on the air circuit and working component. [Reference] The pressure drop will be 10kPa or less compared to the initial pressure of -80kPa when the following pneumatic components is used.

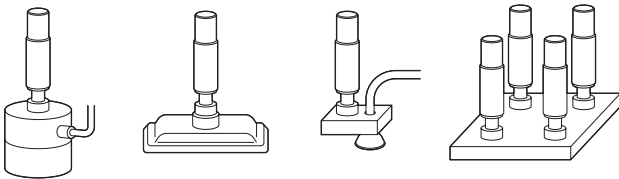


- If vacuum is supplied in a stroke state, the sealing performance may not be attained. For vacuum suction, supply vacuum before stroke.
- While wiring, ensure that inductive noise is not applied and that high-current or strong magnetic field locations or large motor power lines for other devices do not use the same piping and wiring (through multi-core cables, etc.). Also, pay attention to the inverter power supply and wiring section used for robots, etc. (same wiring and piping not possible). Apply the frame ground of this power supply and insert the filter to the output part.
- When surge-generating inductive loads or power supplies of product output and solenoid valve/relay, etc., are common, the surge current flows around the output part and may cause damage. Separate the inductive load output system from the output power supply of the product. If a separate power supply cannot be used, connect the surge absorption element directly to all inductive loads in parallel.
- Select a motor power supply which provides ample capacity based on the number of installed products. Malfunction may occur if there is no excess capacity.
- Do not disassemble the products.
- The lead wire cannot be used for applications involving repeated bending.
- The customer is responsible for confirming the compatibility of CKD products with the customer's systems, machines and equipment.

Mounting, installation and adjustment

⚠ WARNING

- Before starting operation, check for loosening or abnormalities at load or fitting connections.
- Start operation after confirming that components operate correctly. After installing, repairing, or modifying the product, conduct a function inspection and confirm that the product is correctly installed.
- Confirm that there is no machine interference and that the actuation system is normal.
- Do not apply impact to the product by dropping it, etc. Impact load can damage the product.
- After installing the product and piping, check that its movement is smooth before using. Connection using hard tubing or piping with a small bending radius could cause improper operation or failure.
- Using the product in the following way can cause moment force on the shaft even at below load capacity, leading to malfunctions or breakdown.
 1. When a large jig other than the suction pad is attached to the shaft.
 2. When mounting a large or irregularly shaped suction pad.
 3. When using in ways which apply eccentric load to the shaft.
 4. When holding one jig or workpiece with several AFB units.



Consult with CKD when using this unit with the method above.

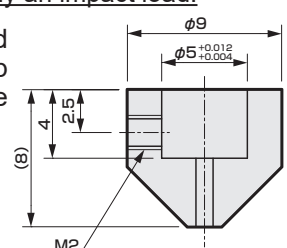
- Do not place items on top of the product.
- Use at an ambient temperature of 10 to 40°C and an ambient humidity of 35 to 80% to prevent condensation and freezing. Failure to do so may cause damage to the product.
- Mount the product on incombustible materials. Direct attachment or mounting to or near flammable materials may cause fire.
- Product must be D type grounded (ground resistance 100 Ω or less). If electrical leakage occurs, it may lead to electric shock or malfunction.
- Perform wiring securely so that there is no erroneous wiring or looseness in the connectors. Check wiring insulation. Contact with other circuits, ground faults, and defective insulation between terminals may cause overcurrent to flow into the product, causing damage. This could lead to malfunction or fire.
- Do not damage, put excessive stress, or place a heavy object on the lead wire. It may lead to electric shock.

- Observe the precautions to prevent electric shock.
 1. Do not touch the controller or the motor. The high temperatures can cause burns by touching associated parts. Only after sufficient time has passed, conduct inspections, etc. Even immediately after turning OFF the power supply, a high voltage will be applied until the electric charge stored in the internal capacitor is discharged. Do not touch for about 3 minutes.
 2. Before maintenance and inspection, turn OFF the controller power supply switch. There is a risk of electrical shock from high voltage.
 3. Do not attach or detach connectors while the power is ON. This may cause malfunction, failure, or electric shock.

⚠ CAUTION

- Do not remove the product from the package until just before piping. Foreign matter could enter from the piping port or shaft clearance and cause faults or malfunctions.
- Because the oval hole 3×5 on the back of the body penetrates the inside of the product, do not use a 3 mm or more knock pin for positioning.
- Before installation of the piping, air-flush the piping to remove all foreign matter and cutting chips.
- Use appropriate torque to tighten the pipes when connecting them.

Port thread	Tightening torque (N·m)
M5	1.0 to 1.5

- Do not hit the shaft with anything or cause scratches or indents. Scratches or indents on the shaft could damage bearings and lead to faults or malfunctions.
- Be sure to read the instruction manual carefully. Fully understand contents before starting use.
- Do not hold the product's movable parts or cables during transportation and installation. This may lead to injury or disconnection.
- Do not install in places where large vibration or impact is transmitted. It may lead to malfunction.
- The vertical acceleration may cause the shaft to unintentionally operate. Operate the product in consideration of the relationship between the inertia weight and buffer force.
- The product may place the workpiece and then crimp with the shaft as is. (The product is constructed so that the motor shaft is not subjected to the press load.) However, set the press load to 50 N (approx. 5kgf) or less and do not apply an impact load.
- Manufacture the jig attached to the tip of the shaft tip while referring to the shape of the right part.
 
- Do not apply external force to the motor when installing the product on equipment, etc. Since a small screw is used to fix the motor, external force may cause damage or malfunction.

Use/maintenance

DANGER

- Wiring work and inspection should be done by a specialized technician.
- Perform the wiring after the product installation.
It may lead to electric shock.
- Do not operate the unit with wet hands.
It may lead to electric shock.
- Do not attach or detach wiring or connectors with the power supply ON.
This may cause malfunction, failure, or electric shock.

WARNING

- Refer to the instruction manual and conduct careful maintenance and inspection. Incorrect handling could result in device or system damage or operation faults.

CAUTION

- Conduct daily inspections and regular inspections to ensure that maintenance control is done correctly. If maintenance is not sufficient, the product's functions could deteriorate markedly and lead to a shortened service life, faults and accidents.
- Stop use if leakage increases or if the device does not function correctly. After installing, repairing, or modifying the product, conduct a functional inspection and confirm that the product is correctly installed.
- If the product fails (abnormal heat generation, smoke emission, unusual odor, noise, vibration, etc.), immediately shut off the power supply. It may cause damage to the product or lead to fire caused by the current flow.
- When performing maintenance, inspection and repair, stop the power supply to this product. Caution people in the vicinity that a third party should not turn ON the power inadvertently or operate the product.
- When disposing of the product, comply with laws pertaining to waste treatment and cleaning. Consign it to a specialized waste disposal company for processing.
- Warranty when exporting to foreign countries
 - (1) CKD will repair products returned to the CKD plant or a company/factory designated by CKD. Compensation of construction and return shipment expenses are excluded.
 - (2) The repaired product shall be returned to a designated place in Japan with domestic packaging specifications. The terms of this warranty define the basics. If the warranty contents described in an individual specification drawing or specification sheet are different from this warranty clause, the specification drawing or specification sheet will take precedence.

For other precautions, check the materials below.

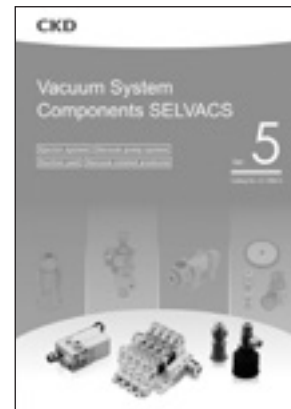
Instruction manual
Active Fine Buffer AFB-RB Series

Related products

Vacuum system equipment SELVACS

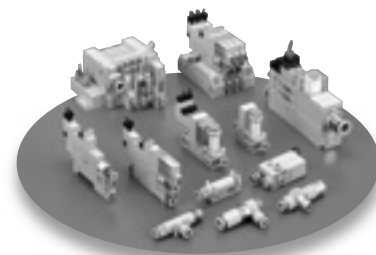
- **Compact design**
Each component has been compactly designed to save space.
- **Wide model variation**
Extensive model series and variations handle a wide range of fields and applications.
- **Unitized/modularized**
The ejector system/vacuum pump system which form the core are unitized and modularized, designed to save space and increase ease of use.

Catalog No. CC-796A



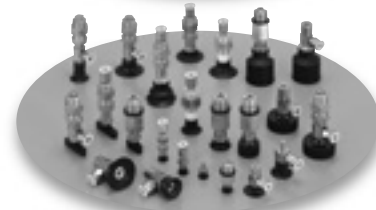
Ejector system/vacuum pump system

Vacuum ejector and vacuum unit form the core of the vacuum system. Various units are available from single units to those combining various related products.



Suction pad

Attachment that directly adsorbs workpieces. Various materials, shapes and pad diameters are available according to the size, weight and characteristics of the workpiece.



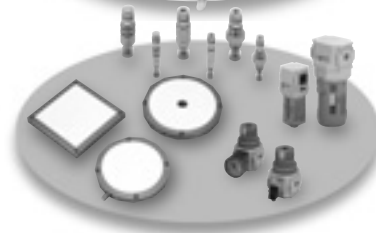
Vacuum-related products

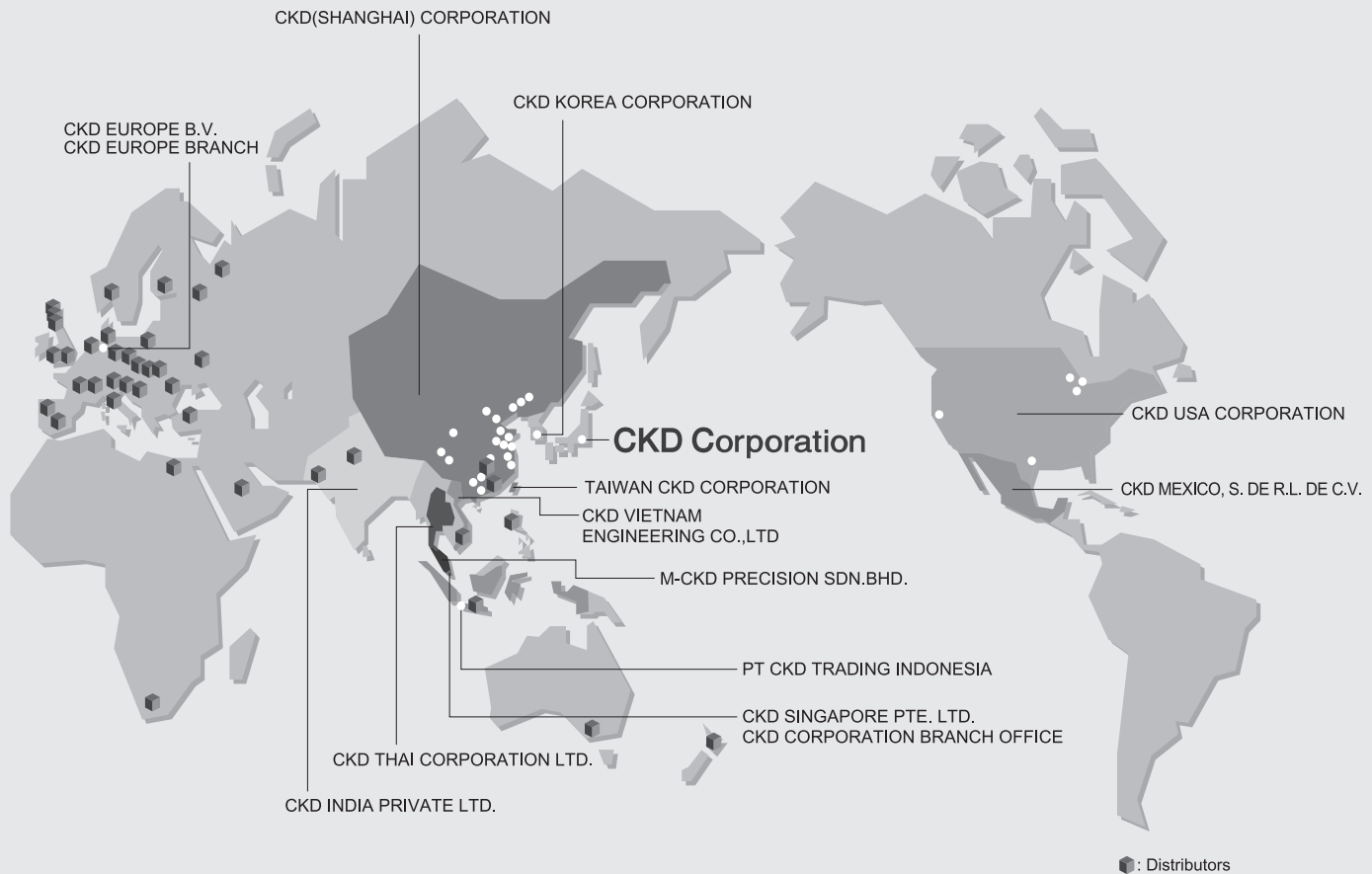
Various related components such as vacuum burst valve, vacuum pressure switch and vacuum filter are available according to the vacuum system.



Related products

Related products suitable for more advanced vacuum systems such as vacuum filter, vacuum regulator, quick valve, precise suction plate, and buffer unit are available.





CKD Corporation

Website <https://www.ckd.co.jp/en/>

- ◻ 2-250 Uji, Komaki City, Aichi 485-8551, Japan
- ◻ PHONE +81-568-74-1338 FAX +81-568-77-3461

ASIA

喜開理(上海)機器有限公司

CKD(SHANGHAI)CORPORATION

●營業部/上海浦西事務所(SALES HEADQUARTERS / SHANGHAI PUXI OFFICE)
Room 601, 6th Floor, Yuanzhongkeyan Building, No. 1905
Hongmei Road, Xinhui District, Shanghai 200233, China
PHONE +86-21-81911888 FAX +86-21-60905356

- 上海浦東事務所(SHANGHAI PUDONG OFFICE)
- 寧波事務所(NINGBO OFFICE)
- 杭州事務所(HANGZHOU OFFICE)
- 無錫事務所(WUXI OFFICE)
- 昆山事務所(KUNSHAN OFFICE)
- 蘇州事務所(SUZHOU OFFICE)
- 南京事務所(NANJING OFFICE)
- 合肥事務所(HEFEI OFFICE)
- 成都事務所(CHENGDU OFFICE)
- 武漢事務所(WUHAN OFFICE)
- 鄭州事務所(ZHENGZHOU OFFICE)
- 長沙事務所(CHANGSHA OFFICE)
- 重慶事務所(CHONGQING OFFICE)
- 西安事務所(XIAN OFFICE)
- 廣州事務所(GUANGZHOU OFFICE)
- 中山事務所(ZHONGSHAN OFFICE)
- 深圳西區事務所(WEST SHENZHEN OFFICE)
- 深圳東區事務所(EAST SHENZHEN OFFICE)
- 東莞事務所(DONGGUAN OFFICE)
- 廈門事務所(XIAMEN OFFICE)
- 福州事務所(FUZHOU OFFICE)
- 瀋陽事務所(Shenyang OFFICE)
- 大連事務所(DALIAN OFFICE)
- 長春事務所(CHANGCHUN OFFICE)
- 北京事務所(BEIJING OFFICE)
- 天津事務所(TIANJIN OFFICE)
- 青島事務所(QINGDAO OFFICE)
- 濰坊事務所(WEIFANG OFFICE)
- 濟南事務所(JINAN OFFICE)
- 烟台事務所(YANTAI OFFICE)

CKD INDIA PRIVATE LTD.

- HEADQUARTERS
Unit No. 607, 6th Floor, Welldone Tech Park, Sector 48,
Sohna Road, Gurgaon-122018, Haryana, India
PHONE +91-124-418-8212
- BANGALORE OFFICE
- PUNE OFFICE

PT CKD TRADING INDONESIA

- HEAD OFFICE
Menara Bidakara 2, 18th Floor, Jl. Jend. Gatot Subroto Kav.
71-73, Pancoran, Jakarta 12870, Indonesia
PHONE +62-21-2938-6601 FAX +62-21-2906-9470
- MEDAN OFFICE
- BEKASI OFFICE
- KARAWANG OFFICE
- SEMARANG OFFICE
- SURABAYA OFFICE

CKD KOREA CORPORATION

- HEADQUARTERS
(3rd Floor), 44, Sinsu-ro, Mapo-gu, Seoul 04088, Korea
PHONE +82-2-783-5201~5203 FAX +82-2-783-5204
- 水原營業所(SUWON OFFICE)
- 天安營業所(CHEONAN OFFICE)
- 蔚山營業所(ULSAN OFFICE)

M-CKD PRECISION SDN.BHD.

- HEAD OFFICE
Lot No.6, Jalan Modal 23/2, Seksyen 23, Kawasan MIEL,
Fasa 8, 40300 Shah Alam, Selangor Darul Ehsan, Malaysia
PHONE +60-3-5541-1468 FAX +60-3-5541-1533
- JOHOR BAHRU BRANCH OFFICE
- PENANG BRANCH OFFICE

CKD SINGAPORE PTE. LTD.

- No.33 Tannery Lane #04-01 Hoesteel Industrial
Building, Singapore 347789, Singapore
PHONE +65-67442623 FAX +65-67442486

CKD CORPORATION BRANCH OFFICE

- No.33 Tannery Lane #04-01 Hoesteel Industrial
Building, Singapore 347789, Singapore
PHONE +65-67447260 FAX +65-68421022

CKD THAI CORPORATION LTD.

- HEADQUARTERS
19th Floor, Smooth Life Tower, 44 North Sathorn Road,
Silom, Bangrak, Bangkok 10500, Thailand
PHONE +66-2-267-6300 FAX +66-2-267-6304-5
- NAVANAKORN OFFICE
- EASTERN SEABOARD OFFICE
- LAMPHUN OFFICE
- KORAT OFFICE
- AMATANAKORN OFFICE
- PRACHINBURI OFFICE
- SARABURI OFFICE

台灣喜開理股份有限公司

TAIWAN CKD CORPORATION

- HEADQUARTERS
16F-3, No. 7, Sec. 3, New Taipei Blvd., Xinzhuang Dist.,
New Taipei City 242, Taiwan
PHONE +886-2-8522-8198 FAX +886-2-8522-8128
- 新竹營業所(HSINCHU OFFICE)
- 台中營業所(TAICHUNG OFFICE)
- 台南營業所(TAINAN OFFICE)
- 高雄營業所(KAOHSIUNG OFFICE)

CKD VIETNAM ENGINEERING CO.,LTD.

- HEADQUARTERS
18th Floor, CMC Tower, Duy Tan Street, Cau Giay
District, Hanoi, Vietnam
PHONE +84-24-3795-7631 FAX +84-24-3795-7637
- HO CHI MINH OFFICE

EUROPE

CKD EUROPE B.V.

- HEADQUARTERS
Beechavenue 125A, 1119 RB Schiphol-Rijk, the Netherlands
PHONE +31-23-554-1490
- CKD EUROPE GERMANY OFFICE
- CKD EUROPE UK
- CKD EUROPE CZECH O.Z.
- CKD CORPORATION EUROPE BRANCH
Beechavenue 125A, 1119 RB Schiphol-Rijk, the Netherlands
PHONE +31-23-554-1490

NORTH AMERICA & LATIN AMERICA

CKD MEXICO, S. DE R.L. DE C.V.

- Cerrada la Noria No. 200 Int. A-01, Querétaro Park II,
Parque Industrial Querétaro, Santa Rosa Jáuregui,
Querétaro, C.P. 76220, México
PHONE +52-442-161-0624

CKD USA CORPORATION

- HEADQUARTERS
1605 Penny Lane, Schaumburg, IL 60173, USA
PHONE +1-847-648-4400 FAX +1-847-565-4923
- LEXINGTON OFFICE
- SAN ANTONIO OFFICE
- SAN JOSE OFFICE/ TECHNICAL CENTER
- DETROIT OFFICE
- BOSTON OFFICE

Revision details

- AZ Motor option added
- Safety precautions changed

The goods and/or their replicas, the technology and/or software found in this catalog are subject to complementary export regulations by Foreign Exchange and Foreign Trade Law of Japan.

If the goods and/or their replicas, the technology and/or software found in this catalog are to be exported from Japan, Japanese laws require the exporter makes sure that they will never be used for the development and/or manufacture of weapons for mass destruction.